

INTRODUCTION

The invention of the technological diet equipment (called in English as “Diet Tech”), possesses inside a system of electronic scales and an incorporated digital organizer – low technological electronic devices that, when they are integrated with corresponding structures, they will all together create the mentioned invention in this application/request for patent of invention.

DESCRIPTION

The mentioned invention that originally has been called in English with the name of “Diet Tech” and has been called in Spanish as “equipo dietético tecnológico” (technological diet equipment), is a set of electronic devices that can be used when eating or can be used to inform. It is similar to a dish, glass or bowl, invented with an integrated digital organizer, which by means of a system of electronic scales will make of this new generation of electronic products an information tool of the different nutritional facts, calories, proteins, fat, carbohydrates, sodium, calcium, fiber and cholesterol that the user is ingesting.

Additionally, the data of the day, time and date will be stored in a digital memory in order to be able to study and transfer this information to a personal computer and print it for future evaluations. Its applications and conveniences are obvious for those who want to maintain same weight, or for those who want to loose or win body weight.

It is important to know that the technological diet equipment will include one cooking guide with different recipes to choose –these are important instructions to follow in order to obtain correct digital factors.

Approximate dimensions of the technological diet equipment components:

Diet-Tech Dish

External length	40.5	(cm)
External width	29	(cm)
Internal length	36.5	(cm)
Internal width	25	(cm)
Thickness	8.5	(cm)
Depths of food containers	6.00	(cm)

Bowl:

External Diameter	22	(cm)
Internal Diameter	18.5	(cm)
Thickness	8	(cm)
Depths of food folders	6.5	(cm)

Glass:

External Diameter	12.5	(cm)
Internal Diameter	9.5	(cm)
Height of	18.00	(cm)

BACKGROUND

Presently, within a large population segment over the world, there exists the human problem of controlling, maintaining, loosing or winning body weight: a certain quantity of pounds distributed in muscular mass and fat.

Concerning this problem of humanity, the industry related to dietetic products, weight loss belts, work out machines, weight reducing pills, recipes books for determined diets, etc. has born. Nowadays, we discover that this problem concerning body weight watching is only the answer of lack of knowledge related to calories, proteins, fats, care30hidratos consumed by people unable to burn or use them.

Additionally, we can observe that in high and low technological markets there does not exist any set of electronic devices that possess a digital organizer that informs the user about the nutritional facts he or she is about to ingest.

Element Catalogue

1. Security ring
2. Synthetic material, part of the internal structure.
3. Food containers' bottom manufactured in a rigid material as: aluminium, plastics or any high technological alloys. These devices are part of the internal structure.
4. Electronic scales system.
5. External main structure.
6. Digital organizer.
7. Power Source.
8. Inferior cover of the structure.

9. Screws that bring together the security ring with the main structure in order to fix tightly the internal structure and to seal the electronic scale.
10. PC connection.
11. Digital screen to show date and time.
- 5 12. Digital screen where you can find and select the food categories and class.
13. ENTER key to access the category of indicated food.
14. ARROW UP (↑) and ARROW DOWN (↓) keys that allow you to search for the food category and then for the indicated food.
15. PLUS (+) key to add the nutritional facts.
- 10 16. EQUAL (=) key to obtain the total amount of the nutritional facts.
17. "C" key to clear the digital information given and reset the operation / dietetic mathematical equation.
18. Keys to select the different dish areas. These will be identified with following abbreviations: SP1, SP2, SP3, and SP4.
- 15 19. Digital screens where the corresponding information of the nutritional facts, calories, proteins, carbohydrates, fats, fibres, sodium, calcium and cholesterol will be shown.
20. Spot of digital screen where the weight of specific food will be shown.
21. "STORE" key to access the nutritional equation in the digital memory. This information will be classified in the digital memory with the nutritional facts data
20 received from the different dish areas. Additionally, the total amounts of the nutritional facts (obtained through the addition of the different dish areas with corresponding date and time of the specific dietetic equation) will be also stored.
22. "ON/OFF" key to turn on and off the appliance.
23. Tiny digital area where you can find a memory counter related to the nutritional facts
25 data previously inputted.
24. Plastic removable structures. Food will be placed within these plastic structures. You can easily place them in a lunch-box, and so food will be nutritionally evaluated before you take it elsewhere.
25. Handle.
- 30 26. Fastener to easily slip it and introduce the digital organizer.
27. Dish screen of the digital organizer that will inform the number of the area in use.

28. Guide bars for the digital organizer to be able to slide it into and extract it from the main structure when you need to use it.
29. Digital organizer compartment.
30. Covers.
31. Infrared eye.
32. Covers of the removable structure.
33. Keys of the digital organizer (SP1, SP2, SP3, SP4)
34. See-through glass table on which you can place the different Diet Tech structures.
35. Graphs that represent chairs that are part of the presentation.
36. Holes: upper screws will come through these holes.
37. Threaded holes or cavities to screw tightly those screws that will fix the security ring. This will press the synthetic material.
38. Small screws that will bring together the inferior structure cover (8) with the main structure (5) and so will firmly fix the digital organizer.
39. Holes: inferior screws will come through these holes.
40. Blank area centred on the inferior structure base. AA batteries, power source of the digital organizer, should be placed in this area.
41. Threaded holes in the inferior section of the main exterior structure.
42. ON/OFF switch corresponding to the dish ramification (Diet Tech).

GENERAL DESCRIPTION OF THE DRAWINGS:

Drawing No. 1:

We can observe the lateral left view of the dish ("Diet Tech") with the digital organizer outside. Initially we can see the fastener (26) of the digital organizer that helps to fasten it and to be able to extract the organizer from inside. Additionally, we can view the controls of mentioned digital organizer, the ON/OFF key (22), the "C" key to clear the data shown on the screens (17), and then be able to reset the nutritional equations. We can also identify the digital screen (12) on the right side of the digital organizer, where the user will be able to select the corresponding food category and the food type by means of the ARROW UP (↑) and ARROW DOWN (↓) keys (14) and the ENTER key (13). We also see the digital organizer spot (20) on the left side of the digital organizer that will inform the weight in grams and ounces of analyzed

food. Within same digital spaces (19), we can additionally view the nutritional facts: proteins, carbohydrates, calories, fats, cholesterol, fibre, sodium and calcium.

We can observe the digital screen (27) in rectangular position to inform the user the space number in operation when pressing the EQUAL (=) key to obtain the complete nutritional data in spaces 1, 2, 3 or 4. It is understood that the PLUS (+) key (15) will add the different areas with different food types or nutritional facts, for example: SP 1 + SP 2 + SP 3 + SP 4.

And finally in regard to the digital screens and organizer, we can see in this drawing the memory counter (23) and the STORE key (21) to store digitally in memory the nutritional facts ingested with the date and time.

In regard to the main structure (5) where the digital (waterproof and shock resistant) organizer compartment is located, we can view the security ring (1). This firmly locks the food containers by means of screws (9) that press the synthetic material (2). In addition, we can observe the transparency of the removable containers (24) where food was placed. These containers can be placed in a lunch-box, which should be previously analyzed thanks to the digital organizer ("Diet Tech") (6). The containers have their own covers (32).

Concerning this left lateral graph of the "Diet Tech" dish, we can identify the cover (30) that is on the right edge of the glass table (34), the dish handles (25) and the chairs (35) that are part of the presentation.

Drawing No. 2:

We can see the "Diet Tech" dish on a see-through glass table (34) and the chairs (35) that are part of the presentation. The dish is hermetically or airtight closed thanks to the cover (30). Moreover, you can observe that the digital organizer (6) is inside the dish compartment ("Diet-Tech").

Drawing 3:

We can see an aerial view of the "Diet-Tech" dish on a see-through glass table (34). We can observe the digital organizer (6) outside the compartment ready to be used, with all the digital controls, the ON/OFF key (22), the "C" key to clear the digital information on the screens (17) and in this way to be able to reset the nutritional equations, the digital screen (11) to the centre of the organizer with date and time, the digital screen (12) to the right of the digital organizer where the user will be able to search for the nutritional category to which the analyzed food corresponds by means of the ENTER key (13).

On the left side of the digital organizer (6), we can also see the space on the digital screen (20) that will show food weight in grams and ounces. Among these digital spaces (19) we can also observe the nutritional facts for example: proteins, carbohydrates, calories, fats, cholesterol, fibre, sodium and calcium.

We can observe the digital screen (27) in rectangular position that will inform the user about the space in operation, or when pressing the EQUAL (=) key to obtain the total nutritional data of the spaces 1, 2, 3 or 4. It is evident that the PLUS (+) key (15) will add the different containers with different food categories or nutritional facts SP1 + SP2 + SP3 + SP4. Moreover, we can see the digital memory counter (23) and the store key (21) that will digitally store in memory the ingested nutritional facts including date and time

It is important to view the connection (10) to link/connect the "Diet-Tech" dish thanks to electric connections and in this way to be able to transfer the data stored in memory to a personal computer.

In addition, we can observe the security ring (1) that secures the food containers by means of screws (9). It is noticeable the transparency of the removable containers (24) where food would be placed.

Clearly you can notice the "Diet Tech" dish handles (25) and the fastener (26) of the digital organizer.

Drawing No. 4:

Aerial view of the "Diet-Tech" dish hermetically closed thanks to the transparent cover (30). It is also noticeable the connector (10) to connect the "Diet-Tech" dish with a personal computer and the handles (25) that will help you carry the same. You can observe that in the bottom of the food containers there appear part of the colours and stars of the U.S. flag – fact that is merely a commercial strategy.

Drawing No. 5:

Right lateral view of the transparent "Diet-Tech" dish cover. When using this cover, food will be kept hermetically closed.

Drawing No. 6:

Synthetic material - piece of the interior structure. This material will be pressed on the edges by means of the security ring (1). Mentioned security ring will show some holes (36), through which screws (9) that will be screwed inside the threaded holes (37) will pass.

This synthetic material (2) will be glued by means of a special water-proof and high-temperature-resistant adhesive to the food containers bottoms (3) manufactured with a rigid material. In this way, when emptying a certain weight of food in any of the food containers (3), the synthetic material will millimetrically downwardly expand. The scale system (4) will register the food weight and transfer it to the digital organizer that will do a simple mathematical operation in combination with the program data to obtain so the nutritional facts of corresponding food.

Design No. 7:

Left lateral view of the rigid-material bottoms of the food containers. These are part of the internal structure. The food containers will be glued to the synthetic material (2) thanks to an adhesive. They softly lie on the scales without showing any information in the digital screens.

Design No. 8:

Right lateral view of the security ring where we can observe the separation of the four containers with their holes (36) where the superior screws (9) will pass through.

Design No. 9:

Graph that represents the synthetic material (29) sticked with an adhesive to the food containers (3).

Design No. 10:

Right lateral view of the main exterior structure. We can observe the scales system (4), as well as the handles (25), the threaded holes (37) where the superior screws (9) will be tighten. These will join the security ring with the main structure pressing in the centre the synthetic material (2) that is part of the main structure.

Design No. 11:

Right later view of the digital organizer (6) where we can observe their fasteners (26) to slide it from the compartment that is formed when the interior cover (8) of the structure is joined with the main base (5) thanks to the tiny internal screws (38).

Design 12:

We can view the inferior base (8) of the structure. This has some guide bars (28). Through this guide bars, the digital organizer will be conducted. Additionally, we can see the small inferior screws (38). These will pass through the holes (39) to be screwed in the inferior threaded holes (41), which are part of the exterior structure (5).

Drawing No. 13

Lateral view of the transparent cover.

Drawing No. 14

Lateral view of the covers for the removable food containers that are used for structuring portable lunch-boxes.

Drawing No. 15

Lateral view of the removable food containers. These are four in the case of the "Diet tech" dish and 1 for the glass and for the bowl.

Drawing No. 16

Right lateral view of the security ring together with the superior screws (9).

Drawing No. 17

Graph, which represents the synthetic material (2), glued together with the food containers (3).

Drawing No. 18

Lateral view of the exterior main structure (5), observing the interior scales system (4), the handle (25) and the PC connection (10) in order to connect the "Diet tech" dish to the personal computer, with the inferior threaded holes (41) in which the small inferior screws will bring together the inferior structure cover (8) with the main structure (5).

Drawing No. 19

Lateral view of the digital organizer.

Drawing No. 20

Lateral view of the inferior cover of the structure (8) observing the small inferior screws that will join this piece with the main structure (5) passing through the inferior holes (39) in order to screw them into the female threaded holes (41).

Drawing No. 21

Right lateral view of the "Diet tech" dish having the digital organizer (6) inside its compartment; we can observe the right handle (25), the security ring (1) and the main structure (5).

Drawing No. 22

Lateral view of the "Diet Tech" dish, in which we can observe the internal system of it with dotted lines. We can see the scales system (4) holding the food containers (3), we can also see the security ring tightly fixed by the screws (9) to the exterior main structure (5).

In addition, we can see the power source (1), one “AA” battery with the digital organizer inside its compartment.

Drawing No. 23

Right lateral view of the “Diet Tech” dish, the ramification of this invention patent in which the digital organizer (6) , the inferior cover (8) and its screws (38) showed in the other Graphs will be omitted. This unit of the diet technological team (“Diet Tech”) will transmit the information of food weight through an infrared electronic eye (31) towards the reception system connected to the personal computer, in where the computer program belonging to the “Diet Tech” team system will be already installed, this program will do the mathematical diet equations according to the food chosen. This ramification of the diet technological team will be applicable for the glass and also for the bowl. Additionally, you will have all other components: the handles (25), the ON/ OFF switch (42) exclusively for this ramification, the electronic scales system (4) and the food compartments (3), its security ring (1) and the covers (30).

Drawing No. 24

Frontal view of the “Diet Tech” glass Graph in which, as in the “Diet Tech” dish, we can observe that it possesses in part the same catalogue of elements, from top to bottom initially we see the security ring (1), the ENTER key (13) and the STORE key (21); we can also see the digital screen (11) that is long and horizontally positioned showing date and time. Then we can observe the digital screen (12) where you can select the chosen drinks, the ON/OFF keys (22) and the key (17) that will also be used for clearing the digital information and starting over our food operations. Finally we see the PC connection (10) in which the wired system will be connected, this system will be used for transferring the information saved in the digital memory towards the personal computer, and we also see the cover (30).

Drawing No. 25

We observe a right lateral view of a structure similar to the glass, part of the invention called “Diet Tech” technological diet team in which we observe the elements already mention in drawing No. 24.

Drawing No. 26

We observe a left lateral view similar to the glass, part of the invention called the “Diet tech” technological diet team in where all the elements already mentioned in drawings No. 24 and

No. 25. We can specifically see the PC connection No. 10 that will be used for transmitting the digital information saved in the memory towards the personal computer.

Drawing No. 27

Disassembled view of the "Diet Tech" technologic glass, in which we can separately appreciate the different components; from top to bottom we see initially the cover (30) which will be transparent and it could seal thermically all the unit including the structure (24) that will be a plastic and removable structure, this unit (24) will have its own cover (32) and may be used for carrying drinks in the lunch-box. We also can view the security ring (1) that will enter by pressure in the main structure (5) leaving the synthetic material trapped (2) that is joined to the bottom of the food containers (3) manufactured in one sole piece. There is also the main exterior structure (5) in which all the components will be put together: the long and horizontally-positioned screen (11) that will show date and time, we also see the digital organizer (6), the keys (14) that will be used for choosing the food, the inferior cover of the structure (8), the power source (7), and the keys called ENTER (13) and STORE (21).

Drawing No. 28

Lateral left view of the dietetic technological bowl with the digital organizer outside its compartment. We can appreciate the following in this graph: the handles (25), the main structure (5), different digital screens as it is the digital screen (19) where the corresponding information of the nutritional facts, calories, proteins, carbohydrates, fats, fibres, sodium, calcium and cholesterol will be shown, we can also see the digital screen (20) where the weight of specific food will be shown, the digital screen (11) where time and date are shown. It is also visible the digital screen (12) to the left side of the digital organizer (6) where you obtain the information related to the food categories (6) and the data base that will be handled through the keys (14) in red, and the ENTER key (21). We can also see the digital screen (23), where you can find the information regarding the memory capacity, there is also the "C" key (17), that will be used for clearing the digital factors and for starting a new mathematical food equation.

Drawing No. 29

Right lateral view of the "Diet Tech" bowl that is hermetically closed with its transparent cover (30). We can observe the fastener (26) that belongs to the digital organizer (6) and we can also view the handles (25).

Drawing No. 30

Right lateral view of the transparent cover (30) of the "Diet Tech" bowl. This can close hermetically the "Diet Tech" bowl including the removable food containers (24).

Drawing No. 31

Right lateral view of the security ring; this will be put inside the main structure (5) through pressure, pressing the synthetic material that is part of the interior structure which will be glued together to the bottom of the food containers (3).

Drawing No. 32

Right lateral view of the synthetic material which is part of the interior structure, this will be glued together to the bottom of the food containers (3).

Drawing No. 33

Right lateral view of the bottom of the food containers (3). This will be manufactured in a rigid material and it will be part of the interior structure.

Drawing No. 34

Right lateral view of the main structure (5) in which all the components of the bowl will be put together. It is possible to view the fasteners (25) and the electronic scales system (4).

Drawing No. 35

Lateral view of the digital organizer (6).

Drawing No. 36

Lateral view of the inferior cover of the structure, we can observe the guide bar of this organizer that will be used for moving it in and out of its compartment.

Drawing No. 37

Frontal view of the front cover of the transparent and removable structure (24). This will be used to maintain the food hermetically closed and to be able to carry them inside the "Diet Tech" lunch-box.

Drawing No. 38

Frontal view of the cover of the "Diet Tech" bowl, which is necessary to close the structure hermetically.

Drawing No. 39

Frontal view of the plastic removable structure (24) in which all the food will be put into, and this way they can be transported in the lunch-box.

Drawing No. 40

Frontal view of the security ring of the structure.

Drawing No. 41

Frontal view of the synthetic material, part of the interior structure. This circular piece has a particular form that fits with the crown of the main exterior structure (5). They will be glued together to the bottom of the food compartments of rigid material -- part of the interior structure.

Drawing No. 42

Frontal view of the bottom of the food containers (3) of rigid material, part of the interior structure, this will be glued together by the synthetic material (2).

Drawing No. 43

Frontal view of the main exterior structure, identifying the electronic scales system (4) marked with black lines.

Drawing No. 44

Frontal view of the digital organizer.

Drawing No. 45

Frontal view of the inferior cover of the structure.

Conclusion

We have a utility patent that for its exceptional design is unique in this world, highly recognized for its three new devices extremely similar to a glass, a dish and a bowl having one internal electronic scales system and a digital organizer with low technological devices that will fulfil multiple needs and provide conveniences to the owner allowing him or her to control the body weight by determining the nutritional facts before eating the food.

Ramifications:

A device line for diet industries that may be manufactured in different colors and materials, silver colour, chrome, brown, etc. high technological alloys as it is carbon fibre or high quality plastics.

There will be some "Diet Tech" dishes that will have more than four spaces with a rectangular design; for example 6 spaces and 6 internal scales systems, and a space for carrying knives, forks and spoons, salt, pepper, and napkins. This line of appliances will have a "Diet Tech" lunch-box as an accessory for carrying plastic removable structures (24), inside which food will be carried.